

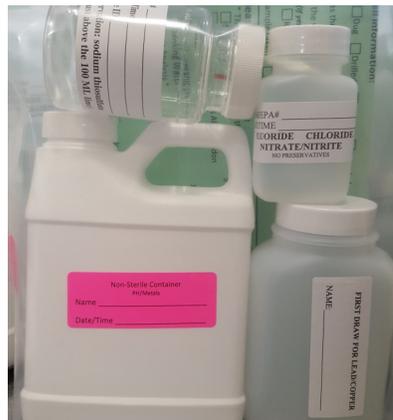
Private Well Water: Using Data to Increase Well Testing and Treatment

Analyzing Local Well Water

Over 40% of homes in New Hampshire (NH) get their water supply from unregulated private wells and many may have contaminants that exceed state and federal safe drinking water regulations. Private well users are responsible for testing their water and implementing treatment when necessary.

The NH Environmental Public Health Tracking (EPHT) Program summarized private well water quality data for a broad range of contaminants, both naturally occurring and from human sources, in order to form a better understanding of what areas of the state may be at higher risk for well water contamination, and to encourage private well users to test their water.

NH EPHT worked collaboratively with the NH Public Health Lab and the NH Department of Environmental Services (NHDES) to access and combine available private well water quality data from more than 23,000 unique wells from 2006 to 2020.



For each well, the maximum value for each contaminant was used when comparing results against drinking water health limits to represent potential underlying drinking water hazards.

Understanding Testing and Treatment

Unhealthy levels of contaminants are common in many private wells in NH. Some of these contaminants, such as arsenic and radon, have been linked to cancer and other negative health outcomes. NHDES recommends testing well water every 1-3 years to ensure it is safe to drink. Bacteria and nitrate should be tested annually.

NHDES recommends that prospective homebuyers test the water in a home with a private well before purchase. After receiving test results residents can use the [NHDES Be Well Informed Guide](#) to help understand water quality results and treatment options for contaminants of concern.

Accessing Well Water Data Online

The Private Well Water dashboard is available through the [NH DHHS Data Portal](#). It allows the user to choose from 14 common contaminants and multiple water quality measures, such as the percent of wells tested over a drinking water standard or median concentration of contaminants in well water in the area of interest. These water quality measures can be used to get a better idea of private well water quality trends observed in tested wells in and around the town or county of interest.

Additionally, the Private Well Water Dashboard provides summary data from the United States Geological Survey (USGS) on arsenic probability estimates in groundwater throughout the state. Finally, the estimated populations served by wells are provided in order to assess the number of residents who may be exposed to contaminants in private well water and who may benefit from targeted outreach campaigns.



Supporting Evidence-Based Decision Making

Many contaminants have been linked to a broad range of negative health outcomes and drinking water quality is an important environmental health topic. Accessing town and regional well water quality data allows users to target resources towards populations that may be at higher levels of exposure risk. High quality and timely well water data can be an important component in the public health system to advance health equity initiatives and ensure all NH residents are provided healthy drinking water to maximize their health potential.

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Using Data to Drive Health Actions

How can this data benefit the residents of New Hampshire?

Data can be used to target areas of the state where historic well water testing has shown the presence of contaminants.

How can this tool better inform healthcare providers and patients about the importance of testing their water?

Data can be used to educate healthcare providers and patients about the importance of regular well water testing.

How can this data be used by policymakers to inform policy development?

Testing results may be used to target policies or funding to increase awareness around the importance of regular well water testing and treatment.

How can this data be used to better understand the well water quality by local officials?

View specific contaminants and compare community against county and state values.

How can this data be used by academic partners?

Data can be used to create targeted outreach programs or further make connections between well water quality and health outcomes in specific regions of the state.

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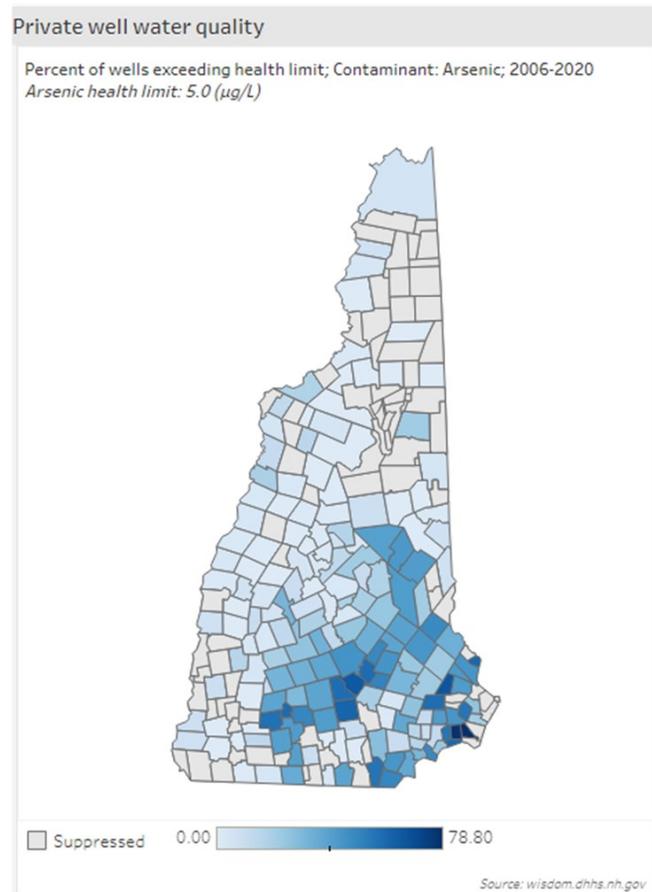
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Exploring Data at Multiple Geographies

New Hampshire has 10 counties, 13 cities, 221 towns, and 25 unincorporated places. The Private Well Water Dashboard allows users to access water quality data at the town, county and state level. The 14 most common contaminants included are: arsenic, chloride, copper (flushed), copper (stagnant), fluoride, iron, lead (flushed), lead (stagnant), manganese, nitrate, nitrite, radon, sodium, and uranium.

Additionally, users have the ability to select more than one town at the same time in order to compare results throughout the state. Data for any town with less than 20 wells tested are not displayed.



Accessing Data and Reports

- Download summary reports for all 14 contaminants at the town level.
- Access town level summary reports to compare town level results to county and state level results. Arsenic probability estimates are also available for download at the town level.
- See estimates on the population served by wells for download at the town, state and county level. Both United States Geological Survey and Behavioral Risk Factor Surveillance Survey (BRFSS) data are available for download.
- Access BRFSS testing behavior data by download at the county level.